# United States

# Department of the Interior

# Bureau of Land Management

***Miles City Field Office***

# XTO

# Headington APDs

Determination of NEPA Adequacy
DOI-BLM-MT-C020-2013-0199-DNA

*For Further Information Please Contact:*

Bureau of Land Management
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**Location/Legal Description: NESE, Section 23, T. 26 N., R. 52 E.**

| Well Name and Number/Lease No. | Surface and Bottom Locations of Proposed Well | | Surface Owner |
|---|---|---|---|
| | Surface Hole | Bottom | |
| **Headington 43X-23A MTM92030** | **T26N, R52E, Section 23, NE¼SE¼** | **T26N, R52E, Section 22 SW¼SW¼** | Private |
| **Headington 43X-23C MTM92030** | **T26N, R52E, Section 23, NE¼SE¼** | **T26N, R52E, Section 22 SW¼NW¼** | Private |
| **Headington 43X-23D MTM92030** | **T26N, R52E, Section 23, NE¼SE¼** | **T26N, R52E, Section 22 NW¼NW¼** | Private |

**A: Description of the Proposed Action:** The proposed action is to drill 3 horizontal exploratory oil wells on one well pad located on private surface over private minerals. The wells would penetrate Federal minerals. The wells would be tested and completed for production, if possible, and plug the wells when the wells are no longer useful. After the wells are plugged, the well site would be cleared of all facilities and equipment and the surface would be reclaimed. Drilling operations are expected to take approximately 30 days, followed by approximately three more weeks of preparations for production.

Because the surface location of these wells is located on private land and off of the Federal lease, the requirements for protection of surface resources and mitigation of environmental impacts resulting from locating and constructing the well site would be primarily subject to state or local regulation.

The proposed action for drilling and production operations includes drilling three horizontal oil wells on an existing well pad. The existing access road is approximately 498’ in length to the well pad. The average disturbed width (including areas of cuts and fills) is approximately 40 feet. Appropriate water drainage measures, (wing ditches/waterbars/culverts) have been installed to control erosion and divert the water off the road. The constructed well pad is approximately 545' X 362' and has been leveled and surfaced with pit run gravel or scoria. A 4-strand wire fence would be installed around 3 sides of the reserve pit during drilling operations. The 4$^{th}$ side would be fenced after the drilling operations are completed. The fence would be removed after the reserve pit has been reclaimed. Trash would be placed in an enclosed container and disposed of at an approved landfill. Self-contained toilet systems with collectors and storage for later off-site disposal would be used for sewage which would be disposed of in accordance with State regulations

At the drilling location, drilling cuttings would be placed into a cuttings only pit approximately 150’ L x 50' W x 14' deep. The pit would be excavated in "cut" material on the pad. Drilling fluids would be stored in steel tanks on location. Drilling fluids, produced water and/or oil recovered during drilling phase would be disposed of at a State approved facility.

The proposed action for drilling operations is to drill three wells, each with a single horizontal leg. The Headington 43X-23A, Headington 43X-23D and Headington 43X-23C well would each be drilled to an approximate total measured depth (TMD) of 19,000’ to test the Bakken formation for commercial quantities of oil and gas. Surface casing would be set at 1,140’ and cemented back to the surface. Fresh water mud would be used while drilling down to surface casing setting depth (1,140’). The wells would then be drilled to approximately 19,000’ TMD using salt water and oil base mud systems. Production casing (7.0”) casing would be set and cemented to approximately 9,051’. The horizontal legs would be drilled approximately 10,000’ to bottom hole locations in the **W½W½, Section 22, T26N, R52E.** The wells would be completed for production, including the necessary surface facilities, if commercial quantities of hydrocarbons are encountered. The wells would be plugged according to federal requirements when the wells are no longer needed.

Shallow aquifers in the Fort Union and Fox Hills formations, would be protected by setting surface casing to 1,140 ft. and cementing back to the surface. Potentially productive hydrocarbon zones and deeper aquifers would be isolated by running production casing to approximately 9,051’ and cementing back to the surface. $H_2S$ is not anticipated to be encountered during drilling operations but an $H_2S$ Contingency Plan has been prepared in the event $H_2S$ is encountered while drilling. Appropriately sized BOPs would be used to control the well and prevent the accidental release of hydrocarbons or salt water into the environment.

If the wells are completed for production, the unused portions of the well pad would be recontoured and seeded, in accordance with the surface owner’s requirements. A pumping unit would be installed at the wellhead, and the production facilities and flare pit will be installed on the drill pad with storage tanks placed in the area of cut ground. Production facilities would be painted a color that would blend in with the surrounding environment. Plans for production facilities would be submitted via Sundry Notice at a later date.
The well site would be reclaimed after the wells are plugged in accordance with federal requirements. The access road would be left in the condition requested by the surface owner. Buried flow lines would either be purged with fresh water and plugged or removed. The disturbed areas would be recontoured and seeded according to the surface owner’s requirements. Erosion control measures would be installed as needed. An abandonment marker would be installed in the well bore and be 4' below ground level